IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended): A method for pre-processing speech, comprising the steps of:

receiving a speech signal;

separating an entire spectrum of said speech signal into a number of predetermined frequency sub-bands;

analyzing said speech signal within each of said frequency sub-bands;

generating respective band-dependent acoustic feature data for each of said respective frequency sub-bands, the band-dependent acoustic feature data being at least in part representative of said speech signal with respect to a respective frequency sub-band;

deriving band-dependent likelihoods for occurrences of speech elements or of sequences thereof within said speech signal based on said band-dependent acoustic feature data;

analyzing said speech signal within said entire spectrum;

generating full-band acoustic feature data, the full-band acoustic feature data being at least in part representative of said speech signal with respect to said entire spectrum;

deriving a full-band likelihood for the occurrences of speech elements or of sequences thereof within said speech signal based on said full-band acoustic feature data; and

deriving an overall likelihood for the occurrences of speech elements or of sequences thereof within said speech signal based on said band-dependent likelihoods and said full-band likelihood.

2. (Previously Presented): The method according to claim 1, wherein deriving said overall likelihood includes combining said band-dependent likelihoods to a union model

likelihood by determining a number of uncorrupted frequency sub-bands of said frequency sub-bands, and adding all possible combinations of products of the band-dependent likelihoods corresponding to the respective frequency sub-bands.

3. (Previously Presented): The method according to claim 1, wherein the step of generating the band-dependent acoustic feature data comprises generating said band-dependent acoustic feature data that include respective band-dependent mel-frequency cepstral coefficient features, which are based on mel-frequency cepstral coefficients derived from the respective frequency sub-bands.

4. (Currently Amended): The method according to claim 1, further comprising:

applying a predetermined broadband noise robustness technique prior to deriving said full-band likelihood [[term]].

5. (Previously Presented): The method according to claim 4, wherein the step of applying the predetermined broadband noise robustness technique comprises applying said broadband noise robustness technique based on a frequency-filtering technique.

6. (Previously Presented): The method according to claim 4, wherein the step of applying the predetermined broadband noise robustness technique comprises applying said broadband noise robustness technique based on a method of spectral-subtraction.

7. (Previously Presented): The method according to claim 1, wherein the step of generating the full-band acoustic feature data comprises generating said full-band acoustic

feature data that include filter bank energy features, which are based on filter bank energies derived from said entire spectrum.

8. (Previously Presented): The method according to claim 1, wherein the step of generating the full-band acoustic feature data comprises generating said full-band acoustic feature data that include filtered filter bank energy features, which are based on filtered filter bank energies derived from said entire spectrum.

9. (Previously Presented): The method according to claim 1, wherein the step of generating said full-band acoustic feature data comprises generating said full-band acoustic feature data that include full-band mel-frequency cepstral coefficient features, which are based on mel-frequency cepstral coefficients derived from said entire spectrum.

10. (Previously Presented): The method according to claim 1, wherein the step of generating said full-band acoustic feature data and/or said band-dependent acoustic feature data comprises generating said full-band acoustic feature data and/or said band-dependent acoustic feature data that include PLP-linear prediction filter features, which are based on PLP-linear prediction filter coefficients.

11. (Previously Presented): The method according to claim 1, wherein the step of generating the full-band acoustic feature data comprises generating said full-band acoustic feature data that include spectrally-changed full-band mel-frequency cepstral coefficient features, which are generated by applying a method of spectral subtraction to said full-band mel-frequency cepstral coefficient features.

12. (Previously Presented): The method according to claim 1, further comprising:

determining, using a probability estimator, said band-dependent likelihoods and said full-band likelihood.

13. (Currently Amended): The method according to claim 1, further comprising:

deriving [[said]] filtered filter bank energies from [[said]] filter bank energies by subtracting a first filter bank energy from a second filter bank energy, wherein said first filter bank energy corresponds to a first discrete frequency and said second filter bank energy corresponds to a second discrete frequency, lying two discrete frequency steps after said first filter bank energy.

14. (Currently Amended): A speech pre-processing system, comprising.

means for receiving a speech signal;

means for separating an entire spectrum of said speech signal into a number of predetermined frequency sub-bands;

means for analyzing said speech signal within each of said frequency sub-bands;

means for generating respective band-dependent acoustic feature data for each of said respective frequency sub-bands, the band-dependent acoustic feature data being at least in part representative of said speech signal with respect to a respective frequency sub-band;

means for deriving band-dependent likelihoods for occurrences of speech elements or of sequences thereof within said speech signal based on said band-dependent acoustic feature data;

means for analyzing said speech signal within said entire spectrum;

means for generating full-band acoustic feature data, the full-band acoustic feature data being at least in part representative of said speech signal with respect to said entire spectrum;

means for deriving a full-band likelihood for the occurrences of speech elements or of sequences thereof within said speech signal based on said full-band acoustic feature data; and

means for deriving an overall likelihood for the occurrences of speech elements or of sequences thereof within said speech signal based on said band-dependent likelihoods and said full-band likelihood.

15. (Cancelled).

16. (Currently Amended): A computer readable storage medium, having embedded therein computer executable instructions, wherein the instructions, when executed by a processor, cause the processor to perform a method comprising:

receiving a speech signal;

separating an entire spectrum of said speech signal into a number of predetermined frequency sub-bands;

analyzing said speech signal within each of said frequency sub-bands;

generating respective band-dependent acoustic feature data for each of said respective frequency sub-bands, the band-dependent acoustic feature data being at least in part representative of said speech signal with respect to a respective frequency sub-band;

deriving band-dependent likelihoods for occurrences of speech elements or of sequences thereof within said speech signal based on said band-dependent acoustic feature data;

analyzing said speech signal within said entire spectrum;

generating full-band acoustic feature data, the full-band acoustic feature data being at least in part representative of said speech signal with respect to said entire spectrum;

deriving a full-band likelihood for the occurrences of speech elements or of sequences thereof within said speech signal based on said full-band acoustic feature data; and

deriving an overall likelihood for the occurrences of speech elements or of sequences thereof within said speech signal based on said band-dependent likelihoods and said full-band likelihood.